

Discussion on Control of Facade Styles and Features during Restoration of Huizhou Traditional Buildings

With the Working Method of Wall Surface, Doors and Windows and Fire-Sealing Wall as the Example

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Abstract

By starting from the facade styles and features of Huizhou traditional buildings and taking the project of rehabilitation of historical buildings in Waibianxi, Tunxi District, Huangshan as the example references, this paper analyzed the principles to be held and the specific methods during rehabilitation of facade styles and features of Huizhou traditional buildings in a detailed way in the hope of providing theoretical and technical reference for rehabilitation work of other traditional buildings.

Keywords

Huizhou; Traditional Buildings; Facade Styles and Features; Rehabilitation

Introduction

Traditional buildings are the witnesses of development history of the city and are the accumulation of culture and customs of that region. As the memory of the city and the carrier of regional culture, traditional building remains and the historical as well as the cultural information carried by them will no longer exist if they are left to be damaged. The special values of traditional buildings lie at they are the thing left from history and cannot be reproduced or rebuilt. They are irrevocable once being destroyed. However, old buildings are damaged, destructed or even ruined due to the destruction made by man or by natural force during years of conservation.

Traditional buildings of Huizhou reflect the history of stage of building development in Huizhou area. Meanwhile, they are also the importance reference for design and artistic creation of new buildings.

Through years of development, Huizhou traditional buildings have formed their own special architectural forms and style characteristics. Till now, hundred years of harsh weather not only brought the linger charm of vicissitudes but also caused the damage of styles and features of structures and facades of buildings. The damaged buildings must be repaired in order to protect and utilize traditional buildings in a better way.

During restoration, it shall not make copy mechanically, but shall take the core factors and master the essences of traditional buildings, and control the representation of traditional façade styles and features in the process of restoration of traditional buildings with the “restoring the old as the old” authenticity conservation principle as the basis.

Features of Huizhou Traditional Buildings

Mr. Lu Yuanding once said, in fact, the local features and styles of traditional buildings are formed by the common features of local buildings, mainly residential and folk architectures.

In the magnificent and long process of history, the building of traditional buildings has formed their own building system with unique feature through development, which is inherited generation after generation by skilful craftsman. Huizhou traditional buildings are the same. Affected by the special geological environment and humanistic factor, Huizhou traditional buildings formed a set of unique structure and form system, leaving an indelible mark on the building history of Chinese dwellings.

The aesthetic feeling and integrity of styles and features of facades of Huizhou traditional buildings are very strong. High walls and small windows, and horse head gable eaves are well-arranged in layout. The white walls and black tiles are fresh and elegant. Viewing from the effect of facades, the black brick door cover, eave and eave tile, and the fire-sealing gable are the natural components of building itself. Those components make the building as beauty as that in the poetry. It can be regarded as the first great characteristic of Hui style residence (Figure 1).



FIG. 1 FACADES OF HUIZHOU TRADITIONAL BUILDINGS

Damaging reasons and Current Situation

The testing in times brought various styles for Huizhou traditional buildings. However, the wind and rain erosion also brought different degrees of damage for traditional buildings. Now, the original appearances of some buildings that are seriously damaged have become hard to be distinguished.

At the early building stage, Huizhou residents often like to plaster with white lime and cover eave with black bricks so as to reach the façade artistic effect of "White walls and black titles". However, as most of old dwelling walls are bricked external plastering, under the erosion of wind and rain, the lime of some external wall surface falls off and the moss grows thickly for years. The components in weak parts such as fire-sealing gables and door covers even showed different degrees of damage.

The damage within certain degree will make the buildings has more historical sense and their unique styles and features form the spiritual connotation derived from the same origin of external facades in Anhui region. However, the damage brought by nature for years will finally make the original appearance of building cannot be distinguished one day (Figure 2). Thus it is of great importance to repair and restore the facades of Huizhou traditional buildings in a timely manner.



FIG. 2 SERIOUSLY DAMAGED EXTERNAL FACADES

Restoration thought

Today, in order to make the charm of traditional buildings to be passed on, we must repair and rebuild their styles and features so that people can know better of the old dwellings of Huizhou and pass on and carry forward their forms and systems.

During specific execution process, the principle of "restoring the old as the old so as to conserve its authenticity" must be followed to keep the authenticity, historicity and integrity of old villages, including architectural style, volume, style, roof form, building material and color. In this way, the original spatial form and interface relied by the whole old village can be conserved.

Influence of Key Elements on Styles and features of Huizhou Traditional Buildings and the Restoration Methods of them

The facades of Huizhou traditional buildings are mostly in black, white and grey color to get the clean and elegant artistic style. The simple and natural color of "black brick hood and horse head white-washed wall", white painted wall surface, ganged brick and small black grey tile, the refined line, and the overlapping of various factors in order form the peculiar effect just like water-and-ink rendering in Chinese Landscape painting together with years of erosion.

Wall

The plastering of white wall partially solves by the penetration of rainwater and make the surface forms various random lines. In this process, the white pink color gradually fade, black brick color gradually stands out and permeate with white color, forming the effect similar to water-and-ink rendering. Viewing from a far place, the natural scene with transition from black, grey to white of wall greatly enhanced the artistic charm and sense of historical vicissitudes of

building. Although it is not made by man intentionally, the aesthetic impression of people for ancient Huizhou is affected to a large extent.

Due to years of exposure to wind and rain, the previously painted coating of existing wall has cracked and fell off. In order to restore its original appearance, the new coating shall be painted at external surface in restoration. However, in case the main part of old building is painted with the new wall surface, it would be unreasonable. Thus, the method of using manual sprinkling of special preparation on the new painting layer will be adopted so as to achieve the uniformity of style and feature of façade. This kind of special preparation is prepared with mixed and fermented with ink, stick rice water, brick powder, tea juice and fungus juice. The specific method is to put the preparation in sprinkling can and then sprinkle a layer of water to the lime surface layer of wall at first. The purpose is as the mark left on wall surface by directly sprinkling with sprinkling can is the dot shapes in different sizes instead of the unnatural facets. At first, sprinkle the water and then sprinkle the preparation to make preparation and water integrate and disperse just like in ink and wash painting. At last, spread unevenly with cleaning cloth to form the natural dispersing mark (Figure 3).



FIG. 3 MAKING-REPLICA METHOD OF WALL

Doors and Windows

Door cover extrudes from main part of wall. The exquisite brick and stone caving artistic work that are decorated above door cover of bar has a rich content, broad range of topics and the fine caving. Although having gone through the wind and rain, its original exquisite and prosperity can still be seen. During restoration, rebuild the damaged part in accordance with original appearance, mix the paint similar to the color of existing part and paint it on rebuilding parts. In this way, no acosmia feeling brought by the

difference between new and old color can be avoided.

There is a small overhanging eave at the place above the window of external wall. As the window of external wall has a small opening and is less used, the function of shading and rain sheltering of this overhanging eave gradually degrades. During restoration, in case there is any damage, it only need to make two to three layers of brick and stone narrow eave shape ornamental elements for meaning and symbolization function at the place 30 centimeter above eave. The curling up of two ends of narrow eave represents the original overhanging eave wing angle (Figure 4).



FIG. 4 COMPARISON OF DOOR COVERS BEFORE AND AFTER RESTORATION

Fire-sealing Gable

Fire-sealing gable on lateral side is also called as hose head wall. Most of them have curled up grey tile at end part or are placed with "seat hoop" component to form the so-called "hose head" shape. Its shape and structure include "magpie tail type", "imprinted hoop type" and "seating dragon-head ridge type". "Magpie tail type" is to chisel a brick similar to magpie tail shape as seating head. "Imprinted hoop type" seating head is to the kilned brick similar to square hoop shape with field like or other textures. "Seating dragon-head ridge type" is to place the "dragon-head ridge ornament" component at seating head. The common shape of dragon-head ridge ornament includes feeding chicken, cod fish and heaven dog.

For the damaged verge, tiles shall be used for pilling up during restoration. The components of air exhausting head are prefabricated in factory and then be assembled at site. The specific process is as follows: place the standard reference object whose dimension is determined through calculation in the middle part, then affix the pre-casted tile carving components with cement mortar

to the four surfaces in surrounding, and at last, splice the component of top surface with the four edges of four components below with cement mortar and strengthen with nails at geometric center of each component to form an integral part (Figure 5).



FIG. 5 FABRICATION OF AIR EXHAUSTING HEAD OF FIRE-SEALING GABLE

Conclusion

After repairing, the elegant appearance at the time of first establishment of wall surface that was damaged is reproduced. And the exquisite details of eaves of doors, windows and horse head are restored one by one too. The restored Waibinxi is presented in its integral and charming facade form, which will not only become a scenery line beside Xin'an River, but the theories and technical means which are used during its facade style and feature's restoration process will certainly become the references for restoration projects of similar traditional buildings (Figure 6).



FIG. 6 FACADE EFFECT AFTER RESTORATION

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